Explain the history of LOTO, and pertinent historical factoids.

Explain why LOTO helps businesses, saves lives, etc.

Explain why LOTO enables technicians and manufacturers to do their work.

Mention the robust LOTO team used by Boeing.

Compare LOTO to wearing any other form of PPE.

“Lock-Out, Tag-Out”, or LOTO, is a system of procedures that protect workers from potentially hazardous sources of energy.

These procedures are regulated by the Occupational Safety and Health Administration, or OSHA, which implemented the American National Standards Institute’s standard for Lock-Out, Tag-Out procedures in 1982.

OSHA defines hazardous energy as any source of energy including electrical, mechanical, hydraulic, pneumatic, chemical, and thermal in machines and equipment that pose a health risk to workers.

Operating and maintaining industrial machines comes with a significant risk factor if those machines are still operational when they are meant to be shut down.

Lock-Out, Tag-Out procedures, when correctly applied, help minimize those risks.

Unintentionally energizing equipment around unprepared workers was, and often still is, a significant source of injury and death in industrial manufacturing workplaces. This above all else necessitates the use of correct Lock-Out, Tag-Out procedures.

Additional benefits include the preservation of equipment and machinery, as even if there is no injury, the equipment involved can be damaged or destroyed, costing the company in further time and money.

When properly applied, Lock-Out, Tag-Out procedures use physical locking mechanisms which prevent deactivated machinery from being re-energized.

Physical locks allow another technician to ensure that a device stays inoperable until work is completed.

Actual padlocks can be used, though specific procedures vary from company to company. Some companies may employ highly specific tools and systems to shut down and lock out their machinery.

The purpose of all Lock-Out, Tag-Out procedures is to allow a technician to shut down a machine and ensure that it will stay de-energized until their work is complete.

This adds a layer of separation which helps ensure the safety of the technician and of potentially unknown workers elsewhere around or on the equipment.

This is often useful for technicians and manufacturers who are directly exposed to the energized components during their work.

When repairing or assembling large scale, industrial equipment, technical workers will directly handle components that could otherwise have dangerous amounts of energetic potential.

In hazardous energy situations, having the correct Lock-Out, Tag-Out procedures adds an additional layer of protection to the workers involved, not unlike having extra PPE.

Following the correct Lock-Out, Tag-Out procedure can be even more vital than wearing a hard hat or nonconductive gloves, though it is never a replacement for other forms of protection.

Safety standards should always be adhered to by all workers. All preventative measures together will still only make a worker as safe as possible in dangerous work environments.

Thank you for your time.